

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

STIP Project No.	<u>B-5370</u>
W.B.S. No.	<u>46085.1.1</u>
Federal Project No.	<u>BRZ-1506(3)</u>

A. Project Description:

The purpose of this project is to replace Union County Bridge No. 444 on SR 1506 (Price Dairy Road) over East Fork Stewarts Creek in Union County (see Figure 1). Bridge No. 444 is a single span, 31-foot long bridge. The replacement structure will be a 50-foot, triple barrel box culvert (three at 10 feet by 8 feet) on a 90 degree skew, buried one foot below the stream bed. The culvert length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing structure.

The approach roadway will extend approximately 130 feet from the east and west ends of the new culvert (see Figure 2). The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Three-foot grass shoulders will be provided on each side. The roadway will be designed with Sub-Regional Tier Guidelines with a 50-mile per hour design speed. The posted speed limit is 45 miles per hour.

Traffic will be detoured off-site during construction using SR 1505/SR 1507 (Roanoke Church Road) and SR 1504 (Ridge Road).

B. Purpose and Need:

The NCDOT Structure Management Unit's Structure Safety Report, dated November 2, 2014, indicates that Bridge No. 444 has a sufficiency rating of approximately 22 out of a possible 100 for a new structure.

The bridge is considered structurally deficient¹ due to superstructure condition appraisal of 5 out of 9 and a substructure condition appraisal of 3 out of 9 according to Federal Highway Administration (FHWA) standards. The bridge also meets the criteria for functionally obsolete² due to structural evaluation appraisal of 3 out of 9 and a deck geometry appraisal of 3 out of 9³.

The bridge was built in 1958 and is approaching the end of its useful life. It is in need of replacement. This is a state-funded bridge replacement project.

¹ "Structurally deficient" means that while the bridge remains safe, it requires repairs and was built to design standards no longer used for bridges. It is in relatively poor condition, and/or has insufficient load-carrying capacity. The insufficient load capacity could be due to age, the original design or to wear and tear.

² "Functionally obsolete" means that the bridge is safe, but needs to be replaced to meet current and future traffic demands. It is narrow, has inadequate under-clearances, has insufficient load-carrying capacity, is poorly aligned with the roadway, and/or can no longer adequately service today's traffic.

³ Bridge Inspection Evaluation codes: "Critical" is 0-3; "Poor" is 4; "Fair" is 5-6; and "Good" is 7-9.

The steel and timber components of Bridge No. 444 are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities, therefore the bridge is approaching the end of its useful life. The timber substructure rated poorly on the condition of the abutments and interior bents, caps and risers, as well as bulkheads, wings and tiebacks. The posted weight limit for the bridge is 15 tons for single vehicles and 19 tons for tractor-trailer semi-trucks.

C. Proposed Improvements:

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
 - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
 - b. Widening roadway and shoulders without adding through lanes
 - c. Modernizing gore treatments
 - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
 - e. Adding shoulder drains
 - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
 - g. Providing driveway pipes
 - h. Performing minor bridge widening (less than one through lane)
 - i. Slide Stabilization
 - j. Structural BMP's for water quality improvement
2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
 - a. Installing ramp metering devices
 - b. Installing lights
 - c. Adding or upgrading guardrail
 - d. Installing safety barriers including Jersey type barriers and pier protection
 - e. Installing or replacing impact attenuators
 - f. Upgrading medians including adding or upgrading median barriers
 - g. Improving intersections including relocation and/or realignment
 - h. Making minor roadway realignment
 - i. Channelizing traffic
 - j. Performing clear zone safety improvements including removing hazards and flattening slopes
 - k. Implementing traffic aid systems, signals, and motorist aid
 - l. Installing bridge safety hardware including bridge rail retrofit
3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
 - a. Rehabilitating, reconstructing, or replacing bridge approach slabs

- b. Rehabilitating or replacing bridge decks
 - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
 - d. Replacing a bridge (structure and/or fill)
- 4. Transportation corridor fringe parking facilities.
- 5. Construction of new truck weigh stations or rest areas.
- 6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
- 7. Approvals for changes in access control.
- 8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
- 9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
- 10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
- 11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
- 12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
- 13. Acquisition and construction of wetland, stream and endangered species mitigation sites.
- 14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

D. Special Project Information:

The estimated costs, based on 2015 prices, are as follows:

Structure	\$ 138,000
Roadway Approaches	131,100
Structure Removal	18,000
Misc. & Mob.	82,900
Eng. & Contingencies	55,000
Total Construction Cost	\$ 425,000
Right-of-way Costs	35,000
Right-of-way Utility Costs	42,500
Total Project Cost	\$ 502,500

Estimated Traffic:

Current (2013) -	300 vpd
Design Year (2035) -	500 vpd
TTST -	6%
Dual -	15%

Accidents: Traffic Engineering has evaluated a recent ten year period and found six accidents occurring in the vicinity of the project. Two of the accidents involved animals in the road; two of the accidents involved right and left turning vehicles colliding; and two of the accidents involved use of alcohol or drugs. None are believed to be associated with the geometry of the bridge or its approach roadways.

Design Exceptions: There are no anticipated design exceptions for this project.

Pedestrian and Bicycle Accommodations: This portion of SR 1506 is not a part of a designated bicycle route nor is it listed in the Transportation Improvement Program (TIP) as a bicycle project. The NCDOT Division of Bicycle and Pedestrian Transportation indicated that there are no existing bicycle or pedestrian accommodations and that the Union County CTP does not call for any improvements for the future of this bridge. Therefore, no recommendations are being made for bicycle and pedestrian facilities on the bridge.

Bridge Demolition: Bridge No. 444 is constructed entirely of timber and steel and should be possible to remove with no resulting debris in the water based on standard demolition practices.

Alternatives Discussion:

No Build – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 1506 (Price Dairy Road).

Rehabilitation – The bridge was constructed in 1958 and the timber and steel materials within the bridge are reaching the end of their useful life.

While basic maintenance and repairs have occurred throughout the years, rehabilitation would require replacing the components which would constitute effectively replacing the bridge.

Replace in Place with Offsite Detour (Alternative 1) – Bridge No. 444 will be replaced on the existing alignment. Traffic will be routed along the off-site detour while the culvert is being constructed. The Division 10 office has indicated that the condition of all roads, bridges and intersections on the off-site detour are acceptable without improvement and concurs with use of this detour. **This alternative is the Preferred Alternative.**

NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the off-site detour. The off-site detour for this project would include SR 1504 (Ridge Road), and SR 1505/SR 1507 (Roanoke Church Road).

The majority of traffic on Price Dairy Road is through-traffic. The detour for the average road user would result in five minutes additional travel time (2.6 miles additional travel). Up to a six-month duration of construction is expected on this project.

Based on the Guidelines, the criteria above indicate that on the basis of delay alone, the detour is acceptable. Union County Emergency Services indicated that an off-site detour is acceptable. However, Union County Schools Transportation Department has indicated that the closure of the road/bridge would have a high impact on school transportation services. According to Union County School System, there are no adequate turnarounds available for school buses on Price Dairy Road and students would have to walk to Roanoke Church Road and Ridge Road to receive bus transportation during the closure event. Price Dairy Road does not have sidewalks and would create a safety concern if children had to walk to a nearby bus stop. NCDOT will coordinate with the Union County School System to provide suitable bus turn-around areas near the closed bridge in order to accommodate the students along Price Dairy Road. This coordination will occur prior to right of way acquisition.

Replace in Place with On-site Detour (Alternative 2) – This alternative replaces the bridge with a culvert (same as Alternative 1) and adds an on-site detour to the south side of the existing bridge. The on-site detour would use two 84” pipes to carry East Fork Stewarts Creek under the detour roadway. This alternative would increase stream impacts by approximately 41 linear feet as compared to Alternative 1 due to the temporary detour. In addition, the costs associated with Alternative 2 are higher than Alternative 1 due to construction of the temporary on-site

detour and associated easements. However, traffic would be maintained on-site during construction.

Structure Type:

The current structure is a bridge built in 1958. With a drainage area of 3.6 square miles, a culvert would have likely been the preferred structure when the bridge was constructed in 1958 from a hydraulic/drainage standpoint. However, during this period, bridges were constructed rather than culverts because bridge materials and labor were more readily available. Based on the drainage area and design discharges, a triple barrel, Reinforced Concrete Box Culvert, with ten-foot by eight-foot openings, on a 90 degree skew, was determined to be adequate from a hydraulics standpoint. The culvert will be buried one-foot below the streambed at approximately the same roadway elevation. Because culverts generally cost less, require less maintenance throughout their service life and last longer than bridges, a culvert is the preferred structure type.

Other Agency Comments:

The **NC Division of Water Resources** and **U.S. Fish & Wildlife Service** in standardized letters provided a request that they prefer any replacement structure to be a spanning structure. Furthermore, the USFWS recommends a biologist survey for the Georgia aster, Michaux's sumac and Schweinitz's sunflower prior to construction.

Response: NCDOT will be replacing the existing bridge with a culvert which will be buried one foot below the stream bed. See discussion of Structure Type in the previous section. For all protected species, NCDOT will ensure that all protected species surveys and concurrence (if applicable) will be resolved prior to construction authorization.

The **Union County Planning Department** commented on the project in an email dated October 22, 2013. They noted that SR 1506 (Price Dairy Road) is a non-thoroughfare road located within Unionville. The road currently has substandard lane widths of approximately nine feet.

Response: NCDOT will be replacing the existing bridge with a culvert. The roadway approaches and bridge width will be designed to meet the Sub-Regional Tier Guidelines for existing and future traffic volumes. Further improvements to SR 1506 (Price Dairy Road), outside of the study limits, are not part of this project.

The **United States Department of Agriculture** provided a letter regarding the Farmland Protection Policy Act (FPPA) and this project's impacts on farmland. Due to this area being already in or committed to urban development, no farmland

area will be affected or converted. This project is exempt from the AD-1006 form at this time.

Response: Comment noted.

Public Involvement:

On April 10, 2013, a letter was sent to all property owners affected directly by this project. Property owners were invited to comment but no comments were received.

In May 2015, a newsletter was sent to 34 local residents living along SR 1506 and nearby roads. This newsletter described the project and its purpose, provided a tentative schedule, and showed the designated detour route. Comments were requested by May 29, 2015. No comments were received about the project by mail, email, or telephone.

Based on no responses to the newsletter, a Public Meeting was determined unnecessary.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed for Type II actions:

<u>ECOLOGICAL</u>	<u>YES</u>	<u>NO</u>
(1) Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	<u>X</u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<u>X</u>	<input type="checkbox"/>
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<u>X</u>
(4) If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	<u>X</u>	<input type="checkbox"/>
(5) Will the project require the use of U. S. Forest Service lands?	<input type="checkbox"/>	<u>X</u>
(6) Will the quality of adjacent water resources be adversely impacted by proposed construction activities?	<input type="checkbox"/>	<u>X</u>
(7) Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)?	<input type="checkbox"/>	<u>X</u>

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| (8) | Will the project require fill in waters of the United States in any of the designated mountain trout counties? | <input type="checkbox"/> | <u>X</u> |
| (9) | Does the project involve any known underground storage tanks (UST's) or hazardous materials sites? | <input type="checkbox"/> | <u>X</u> |

PERMITS AND COORDINATION

YES

NO

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|------|--|--------------------------|--------------------------|
| (10) | If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)? | <input type="checkbox"/> | <u>X</u> |
| (11) | Does the project involve Coastal Barrier Resources Act resources? | <input type="checkbox"/> | <u>X</u> |
| (12) | Will a U. S. Coast Guard permit be required? | <input type="checkbox"/> | <u>X</u> |
| (13) | Could the project result in the modification of any existing regulatory floodway? | <u>X</u> | <input type="checkbox"/> |
| (14) | Will the project require any stream relocations or channel changes? | <u>X</u> | <input type="checkbox"/> |

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES

NO

- | | | | |
|------|---|--------------------------|--------------------------|
| (15) | Will the project induce substantial impacts to planned growth or land use for the area? | <input type="checkbox"/> | <u>X</u> |
| (16) | Will the project require the relocation of any family or business? | <input type="checkbox"/> | <u>X</u> |
| (17) | Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population? | <input type="checkbox"/> | <u>X</u> |
| (18) | If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor? | <u>X</u> | <input type="checkbox"/> |
| (19) | Will the project involve any changes in access control? | <input type="checkbox"/> | <u>X</u> |
| (20) | Will the project substantially alter the usefulness and/or land use of adjacent property? | <input type="checkbox"/> | <u>X</u> |
| (21) | Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness? | <input type="checkbox"/> | <u>X</u> |

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|------|---|--------------------------|--------------------------|
| (22) | Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)? | <u> X </u> | <input type="checkbox"/> |
| (23) | Is the project anticipated to cause an increase in traffic volumes? | <input type="checkbox"/> | <u> X </u> |
| (24) | Will traffic be maintained during construction using existing roads, staged construction, or on-site detours? | <u> X </u> | <input type="checkbox"/> |
| (25) | If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility? | <input type="checkbox"/> | <u> X </u> |
| (26) | Is there substantial controversy on social, economic, or environmental grounds concerning the project? | <input type="checkbox"/> | <u> X </u> |
| (27) | Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project? | <u> X </u> | <input type="checkbox"/> |
| (28) | Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places? | <input type="checkbox"/> | <u> X </u> |
| (29) | Will the project affect any archaeological remains which are important to history or pre-history? | <input type="checkbox"/> | <u> X </u> |
| (30) | Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)? | <input type="checkbox"/> | <u> X </u> |
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended? | <input type="checkbox"/> | <u> X </u> |
| (32) | Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers? | <input type="checkbox"/> | <u> X </u> |

F. Additional Documentation Required for Unfavorable Responses in Part E

Response to Question 2: Habitat is present for the Schweinitz's sunflower and Michaux's sumac. Surveys for both species were completed on September 27, 2013 and the biological conclusion is "no effect." The Carolina heelsplitter mussel is also listed as federally endangered but no habitat is present in the project study area due to findings of heavy pollutants and sediment from local overland runoff. Therefore the biological conclusion is "no effect."

Response to Question 13: Union County is a participant in the Federal Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). According to the NC Floodplain Mapping Program, 100-year base flood elevations have been established in a limited detailed flood study. The Hydraulic Unit will coordinate with FEMA to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of Map Revision (LOMR) are required for this project. The Division will submit sealed as-built construction plans to the Hydraulic Unit upon project completion certifying the project was built as shown on the construction plans.

Response to Question 14: The stream channel will be altered due to the culvert replacing the bridge and by using fill dirt. Approximately 123 linear feet of the East Fork Stewarts Creek and approximately 61 linear feet of Stream SA will be permanently impacted. The culvert will be placed one foot below the stream bed to allow for aquatic passage. Wetland WA is within the fill area: the area of wetland impacted is anticipated to be less than 0.01 acre.

Response to Question 25: Some permanent ROW acquisition is needed from four adjacent parcels. ROW needed is estimated to be 0.2 acre. The cost for this additional ROW is included in the Estimated Costs Table on page 4. Also, the bridge is being replaced with a culvert and will have stream impacts by placing the culvert in the stream.

G. CE Approval

TIP Project No.	<u>B-5370</u>
W.B.S. No.	<u>46085.1.1</u>
Federal Project No.	<u>BRZ-1506(3)</u>

Project Description:

The purpose of this project is to replace Union County Bridge No. 444 on SR 1506 (Price Dairy Road) over East Fork Stewarts Creek in Union County (see Figure 1). Bridge No. 444 is a single span, 31-foot long bridge. The replacement structure will be a 50-foot, triple barrel box culvert (three at 10 feet by 8 feet) on a 90 degree skew, buried one foot below the stream bed. The culvert length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing structure.

The approach roadway will extend approximately 130 feet from the east and west ends of the new culvert (see Figure 2). The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Three-foot grass shoulders will be provided on each side. The roadway will be designed with Sub-Regional Tier Guidelines with a 50-mile per hour design speed. The posted speed limit is 45 miles per hour.

Traffic will be detoured off-site during construction using SR 1505/ SR 1507 (Roanoke Church Road) and SR 1504 (Ridge Road).

Categorical Exclusion Action Classification:

<u> </u>	TYPE II(A)
<u> x </u>	TYPE II(B)

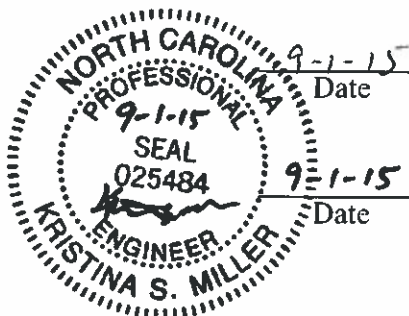
Approved:

9-1-15
Date


Charles R. Cox
Charles Cox, PE – NCDOT Proj. Dev. Group Supervisor
Project Development & Environmental Analysis Unit

Zahid Baloch
Zahid, Baloch, PE – NCDOT Project Planning Engineer
Project Development & Environmental Analysis Unit

Kristina S. Miller
Kristina Miller, PE - Consultant Project Manager
Rummel, Klepper and Kahl, LLP. (RK&K)



For Type II(B) projects only:

9-2-15 
Date for John F. Sullivan, III, PE – Division Administrator
Federal Highway Administration

PROJECT COMMITMENTS

T.I.P. No. B-5370
Replacement of Bridge No. 444 on SR 1506 (Price Dairy Road)
over East Fork Stewarts Creek
Union County
Federal Aid Project No. BRZ 1506(3)
WBS Element 46085.1.1

Hydraulic Unit – FEMA Coordination

The Hydraulics Unit will coordinate with NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

NCDOT's *Best Management Practices for Protection of Surface Waters* (March 1997) and NCDOT's *Culvert Avoidance and Minimization Design Guidance* (April 2012) will be followed through the design and construction process.

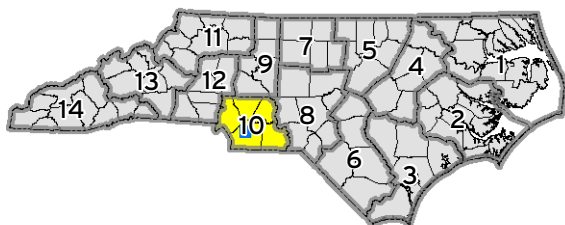
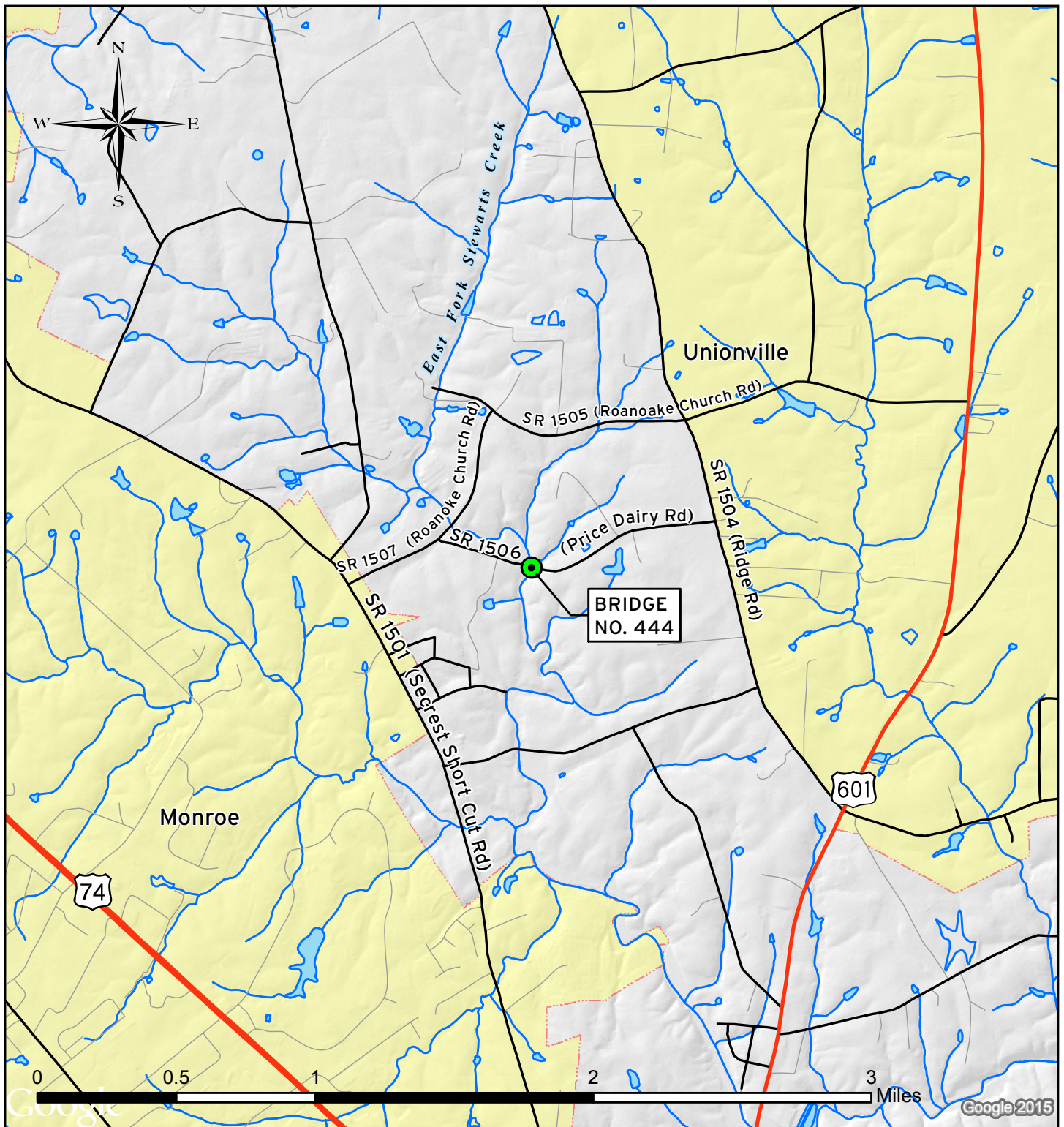
Division Construction

This project involves construction activities on or adjacent to FEMA-regulated streams. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Design Branch, Division Office –Emergency Services and School Buses

Prior to right of way acquisition, NCDOT will coordinate with the Union County School System to provide suitable bus turn-around areas near the closed bridge in order to accommodate the students along Price Dairy Road. NCDOT will also coordinate with local emergency services prior to closing the bridge on Price Dairy Road.

Figures



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS UNIT

B-5370
REPLACE BRIDGE NO. 444 ON SR 1506
OVER EAST FORK STEWARTS CREEK
UNION COUNTY

VICINITY MAP

FIGURE 1

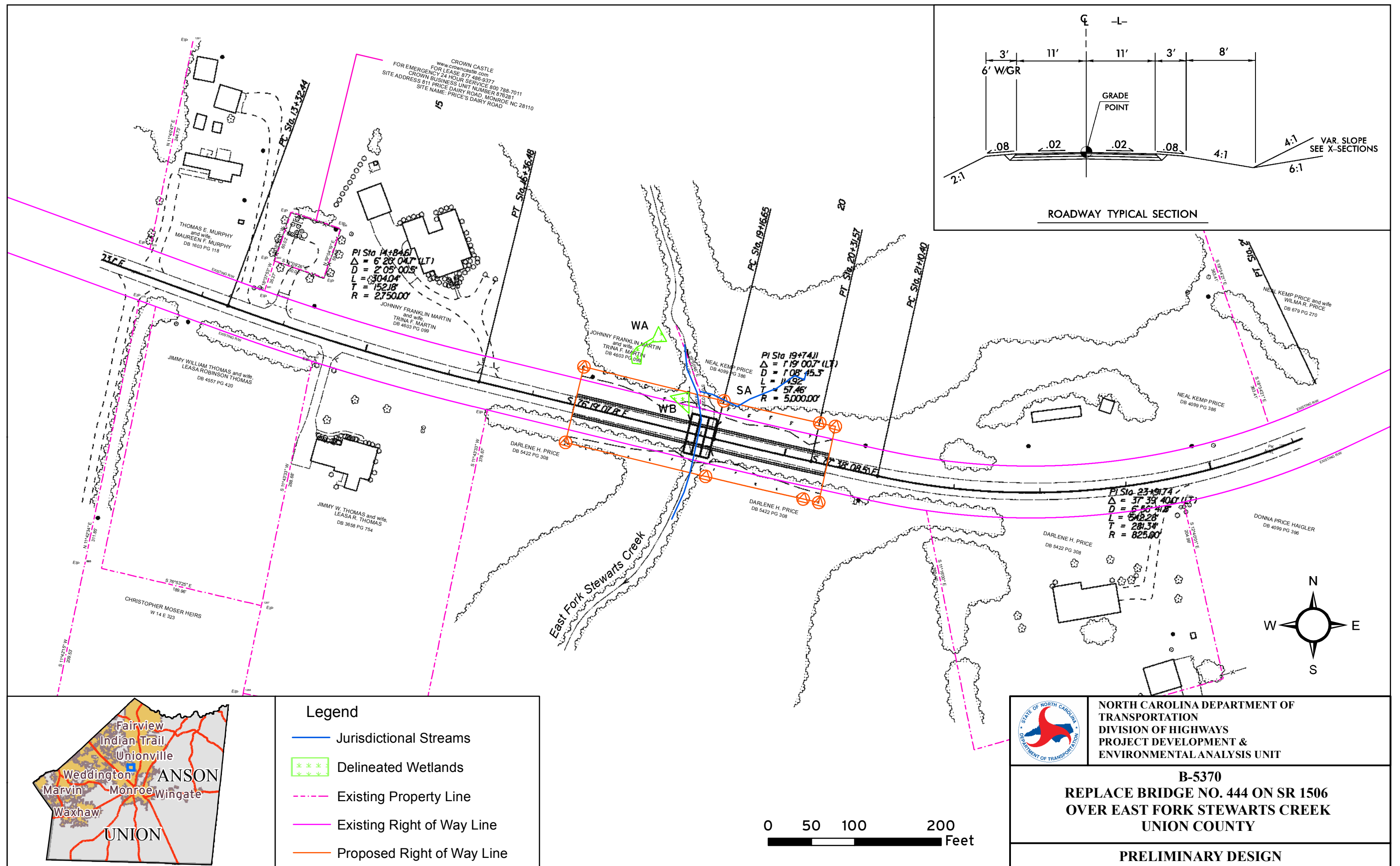


FIGURE 2

Appendix



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Asheville Field Office
160 Zillicoa Street
Asheville, North Carolina 28801

January 11, 2013

Ms. Dionne C. Brown
Bridge Project Planning Engineer
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Ms. Brown:

Subject: Information Request, State Transportation Improvement Project Numbers B-5369, B-5370, B-5371, B-5373, B-5374, and B-5792

On December 12, 2012, we received your letter (via email) requesting information on the subject projects to aid in initial project evaluation. We submit the following comments and recommendations in accordance with the provisions of section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. §§1531-1543); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. §§661-667e); the National Environmental Policy Act (42 U.S.C. §4321 et seq.); the Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§1536, 1538); the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668d); and the Clean Water Act (33 U.S.C. §1251 et seq.).

General Recommendations for Replacing Structures that Cross Rivers and Streams - We generally recommend the use of clear-spanning bridge structures designed, at a minimum, to accommodate the active channel width. Use of culverts is discouraged. Properly sized spanning structures will provide for the passage of aquatic species and accommodate the movement of debris and bed material. Furthermore, spanning structures usually: (1) can be constructed with minimal in-stream impacts, (2) do not require stream-channel realignment, and (3) retain the natural streambed conditions; and the horizontal and vertical clearances may be designed to allow for human and wildlife passage beneath the structures. If possible, bridge supports (bents) should not be placed in the streams. Bents can collect debris during flood events, resulting in the scouring of bridge foundations. In-stream bents can also result in hydrologic changes, such as bedload scour or deposition, which may adversely affect in-stream habitat. Deck drains of the spanning structures should not discharge directly into the streams; instead, they should drain through a vegetated area before entering the streams. Removal of vegetation in riparian areas should be minimized. Armoring of the bank with riprap should be minimized. The reseeded of disturbed areas should be performed promptly after grading, and seed mixes should consist of

native vegetation in order to prevent the spread of invasive plant species. New structures should be constructed without the use of in-stream causeways or work pads whenever possible. When causeways are necessary, using the largest washed stone practicable for the application will prevent unnecessary damage to in-stream habitat and will facilitate complete removal. We recommend that all equipment be refueled and receive maintenance outside of the riparian zone. Refueling and maintenance should take place in designated refueling sites that are provisioned to quickly contain any spills of fuel, lubricants, and other fluids.

Migratory Birds - The MBTA (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds (including the bald eagle), their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. To avoid impacts to migratory birds, we recommend conducting a visual inspection of the bridges and any other migratory bird nesting habitat within the project area during the migratory bird nesting season of March through September. If migratory birds are discovered nesting in the project impact area, including on the existing bridges, the North Carolina Department of Transportation (NCDOT) should avoid impacting the nests during the migratory bird nesting season (March through September). If birds are discovered nesting on the bridges during years prior to the proposed construction date, the NCDOT, in consultation with us, should develop measures to discourage birds from establishing nests on the bridges by means that will not result in the take of the birds or eggs, or the NCDOT should avoid construction and demolition activities during the nesting period.

Bald Eagle - The bald eagle has been removed from the federal list of endangered and threatened species due to its recovery. However, this species continues to be afforded protection by the Eagle Act (16 U.S.C. 668-668d) and the MBTA (16 U.S.C. 703-712). The Eagle Act, enacted in 1940 and amended several times, prohibits anyone without a permit issued by the Secretary of the Interior from "taking" bald eagles, including their parts, nests, or eggs. "Take" is defined as to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." "Disturb" means "To agitate or bother a bald or golden eagle to the degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, causing injury, death, or nest abandonment." In addition to immediate impacts, these definitions also cover impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present if, upon an eagle's return, such alterations agitate or bother the eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits and causes injury, death, or nest abandonment.

If any active nests are located within a half mile of the project sites, we request that work at the sites be restricted from mid-January through July in order to prevent adverse impacts to the bald eagle. This will prevent disturbance of the eagles from the egg-laying period until the young fledge, which encompasses their most vulnerable times. We ask that you consult with this office before construction begins to confirm that the eagles have left the nest. Once this has been confirmed, construction may begin.

B-5369 - Bridge No. 53 on SR 2114 over Cold Water Creek in Cabarrus County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Cabarrus County is available on the U.S. Fish and Wildlife Service (USFWS) website at <http://www.fws.gov/nc-es/es/countyfr.html>.

A review of available information indicates that the project area is within the municipal area of the Town of Concord. We are unaware of any listed species within the vicinity of the project area. The surrounding area appears to be suburban and probably does not have the habitat requirements for listed species. We request that the NCDOT follow the above-listed recommendations to avoid further disruption to the natural environment.

B-5370 – Bridge No. 444 on SR 1506 over East Fork Stewarts Creek in Union County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Union County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. A review of available information indicates that the project site is within the municipal limits of the Town of Unionville. The project area appears to be disturbed by agricultural and suburban land use, but the area around the bridge has standing timber that may provide habitat for the Georgia aster (*Symphyotrichum georgianum*), a federal species of concern; Michaux's sumac (*Rhus michauxii*), a federally endangered species; and Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered species. These species can tolerate minor disturbance and often thrive in areas where human activities limit competition with other plant species. We recommend that a biologist survey for these species prior to construction.

B-5371 - Bridge No. 71 on US 601 over Clear Creek in Union County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Union County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. A review of available information indicates that the project site appears to be disturbed by agricultural and suburban land use, but the area around the bridge has standing timber that may provide habitat for the Georgia aster (*Symphyotrichum georgianum*), a federal species of concern; Michaux's sumac (*Rhus michauxii*), a federally endangered species; and Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered species. These species can tolerate minor disturbance and often thrive in areas where human activities limit competition with other plant species. We recommend that a biologist survey for these species prior to construction.

B-5373 – Bridge No. 44 on SR 1435 over Long Creek in Stanly County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Stanly County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. A review of available information indicates that Long Creek harbors a population of the Carolina creekshell (*Villosa vaughaniana*), a federal species of concern and listed as endangered in North Carolina. The Carolina creekshell is also a species associated with the Carolina heelsplitter (*Lasmigona decorata*), a federally endangered species recorded from adjacent Union County. We recommend that a biologist conduct a survey in Long Creek to look for any listed mussel species. Stanly County is also known to harbor the Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered species. We recommend that a biologist survey the action area for this species.

B-5374 – Bridge No. 448 on SR 2153 over Buffalo Creek in Union County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Union County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. Our records indicate that this project is in close proximity to known

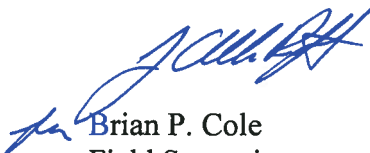
populations of the Georgia aster (*Symphyotrichum georgianum*), a federal species of concern, which is commonly associated with the Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered species. We recommend that a biologist survey the action area for these species.

B-5792 – Bridge No. 342 on NC 16 over Andrew Terrance and Irwin Creek in Mecklenburg County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Mecklenburg County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. A review of available information indicates the project site is within the municipal area of the City of Charlotte. This area appears to be heavily affected by urban development. We request that the NCDOT follow the above-listed recommendations to avoid further disruption to the natural environment.

If you have questions about these comments, please contact Mr. Jason Mays of our staff at 828/258-3939, Ext. 226. In any future correspondence concerning these projects, please reference our log numbers with your project numbers as follows:

<u>NCDOT</u> <u>Project Nos.</u>	<u>USFWS</u> <u>Log Nos.</u>
• B-5369	4-2-13-056
• B-5370	4-2-13-057
• B-5371	4-2-13-058
• B-5373	4-2-13-059
• B-5374	4-2-13-060
• B-5792	4-2-13-061

Sincerely,


Brian P. Cole
Field Supervisor

cc:

Ms. Liz Hair, Asheville Regulatory Field Office, U.S. Army Corps of Engineers, 151 Patton Avenue, Room 208, Asheville, NC 28801-5006

Ms. Marla J. Chambers, Western NCDOT Permit Coordinator, North Carolina Wildlife Resources Commission, 12275 Swift Road, Oakboro, NC 28129

Ms. Polly Lespinasse, Mooresville Regional Office, North Carolina Division of Water Quality, 610 East Center Avenue, Suite 301, Mooresville, NC 28115



United States Department of Agriculture
Natural Resources Conservation Service
4407 Bland Road, Suite 117
Raleigh, North Carolina 27609

Milton Cortés, Assistant State Soil Scientist
Telephone No.: (919) 873-2171
Fax No.: (919) 873-2157
E-mail: milton.cortes@nc.usda.gov

April 30, 2015

Ms. Elizabeth Workman-Maurer
Senior Planner
RK&K
900 Ridgefield Dr., Suite 350
Raleigh, NC 27609

Ms. Workman-Maurer

The following information is in response to your request asking for information on replacement Bridge Tip No 5370, Union Co. NC

Projects are subject to Farmland Protection Policy Act (FPPA) requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency.

For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

Farmland means prime or unique farmlands as defined in section 1540(c)(1) of the Act or farmland that is determined by the appropriate state or unit of local government agency or agencies with concurrence of the Secretary to be farmland of statewide or local importance.

"Farmland" does not include land already in or committed to urban development or water storage. Farmland "already in" urban development or water storage includes all such land with a density of 30 structures per 40-acre area. Farmland already in urban development also includes lands identified as "urbanized area" (UA) on the Census Bureau Map, or as urban area mapped with a "tint overprint" on the USGS topographical maps, or as "urban-built-up" on the USDA Important Farmland Maps. See over for more information.

Project review shows an imperceptible impact on farmland. No farmland area will be affected or converted. You are exempt from filling the AD1006 at this time. Use this letter as proof of exemption.

If you have any questions, do not hesitate to contact me.

Sincerely,

Milton Cortes

Milton Cortes
Assistant State Soil Scientist

Helping People Help the Land

An Equal Opportunity Provider and Employer



Projects and Activities Subject to FPPA

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency.

Assistance from a Federal agency includes:

- Acquiring or disposing of land.
- Providing financing or loans.
- Managing property.
- Providing technical assistance

Activities that may be subject to FPPA include:

- State highway construction projects, (through the Federal Highway Administration)
- Airport expansions
- Electric cooperative construction projects
- Railroad construction projects
- Telephone company construction projects
- Reservoir and hydroelectric projects
- Federal agency projects that convert farmland
- Other projects completed with Federal assistance.

Activities not subject to FPPA include:

- Federal permitting and licensing
- Projects planned and completed without the assistance of a Federal agency
- Projects on land already in urban development or used for water storage
- Construction within an existing right-of-way purchased on or before August 4, 1984
- Construction for national defense purposes
- Construction of on-farm structures needed for farm operations
- Surface mining, where restoration to agricultural use is planned
- Construction of new minor secondary structures such as a garage or storage shed.



North Carolina Department of Environment and Natural Resources

Division of Water Quality

Pat McCrory
Governor

Charles Wakild, P. E.
Director

John E. Skvarla, III
Secretary

MEMORANDUM

To: Dionne C. Brown, NCDOT

From: Alan Johnson, NC Division of Water Quality, MRO

Date: March 18, 2013

Subject: Scoping comments on proposed bridge replacement projects

Reference your correspondence dated December 12, 2012, in which you requested comments for the referenced projects:

Project	Stream Name	River Basin	Stream Classification(s)	303(d) Listing
B-5369	Cold Water Crk	Yadkin-Pee Dee	C, 303d	Turbidity, Ecological /Biological Integrity
B-5370	East Fork Stewarts Crk	Yadkin-Pee Dee	WS III	
B-5374	Buffalo Crk	Yadkin-Pee Dee	C	
B-5373	Long Crk	Yadkin-Pee Dee	C, 303d	Copper, Ecological /Biological Integrity
B-5371	Clear Crk	Yadkin-Pee Dee	C, 303d	Turbidity
B-5792	Irwin Crk	Catawba	C, 303d	Copper, Lead, Zinc

Project Specific Comments:

- Streams Classified as 303d waters of the State: It is recommended that the most protective sediment and erosion control BMPS be implemented in accordance with the *Design Standards in Sensitive Watersheds* (15A NCAC 04B .0124) to reduce the risk to further impairment to the affected stream. It is also requested that road design plans provide treatment of storm water runoff through best management practices as detailed in the most recent version of the NCDWQ *Stormwater Best Management Practices*
- B-5369: Rock/gravel substrate. Stream bank is relatively stable. Due to height of bridge, vegetation exist underneath and is not shaded out providing stability.
- B-5371: There are two eroding drainage ditches at this site that requires maintenance. One located in the northeast quadrant, the other in the southwest quadrant.

General Project Comments:

- The use of rip rap should be minimized for stream stabilization where soft measures can be performed. The use of heavy coir fiber/coconut matting and coir fiber logs is encouraged for areas that may need only "temporary" stabilization. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that

precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

2. Riparian vegetation (native trees and shrubs) shall be preserved to the maximum extent possible. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
3. The construction of floodway benches/storm water benches is highly recommended to reduce scouring and erosion of the stream banks and which also allows for wildlife passage.
4. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification (if required), the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical.
5. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
6. Stormwater shall not be discharge directly to the stream. Bridge deck drains shall not directly discharge in the stream. Stormwater shall be directed across the bridge and pre-treated through site appropriate means (grass swales, preformed scour holes, vegetated buffers, etc.) before entering the stream.
7. If foundation test borings are necessary; it shall be noted in the document. Geotechnical work is approved under General 401 Certification Number 3687/Nationwide Permit No. 6 for Survey Activities.
8. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

Thank you for requesting our input at this time. If you have any questions or require additional information, please contact me at 704-669-1699 or alan.johnson@ncdenr.gov.

cc: Sonia Corrillo, Wetland Unit
Lyn Hardison, Environmental Assist. Officer,
Washington Regional Office
File Copy

13-03-0045



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	B-5370	County:	Union
WBS No.:	46085.1.1	Document Type:	PCE or CE
Fed. Aid No:	BRZ-1506(3)	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	
<u>Project Description:</u> Replace Bridge No. 444 on SR 1506 over East Fork Stewarts Creek.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:

Review of HPO quad maps, HPO GIS information, historic designations roster, and indexes was undertaken on March 27, 2013. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects, which is 100' from the centerline each way and 1000' from each end of the bridge. Based on Union County GIS/Tax information, there is an early twentieth century frame house and outbuildings in the easternmost portion of the APE. Based on Google Street view, the house and farm complex is unremarkable and not National Register eligible (811 Price Dairy Road, PIN 09210010N). In the westernmost portion of the APE is a one-story frame house built c. 1920 (1107 Price Dairy Rd., PIN 09253062). The house is unremarkable, has been altered by the addition of vinyl siding, replacement windows, and an asphalt shingle roof, and is not National Register eligible. All other structures within the APE are under fifty years of age and not NR eligible. There are no National Register listed or eligible properties within the APE and no survey is required. In addition, Bridge No. 444, is not NR eligible. If design plans change, additional review will be required.

Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project area:

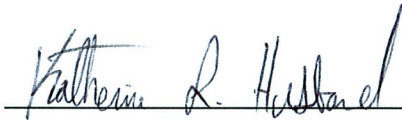
HPO quad maps and GIS information recording NR, SL, LD, DE, and SS properties for the Union County survey, Union County GIS/Tax information, and Google Maps are considered valid for the purposes of determining the likelihood of historic resources being present. There are no National Register listed or eligible properties within the APE and no survey is required.

SUPPORT DOCUMENTATION

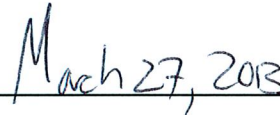
☒ Map(s) ☐ Previous Survey Info. ☐ Photos ☐ Correspondence ☐ Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED



NCDOT Architectural Historian



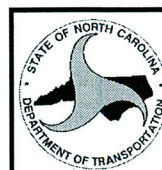
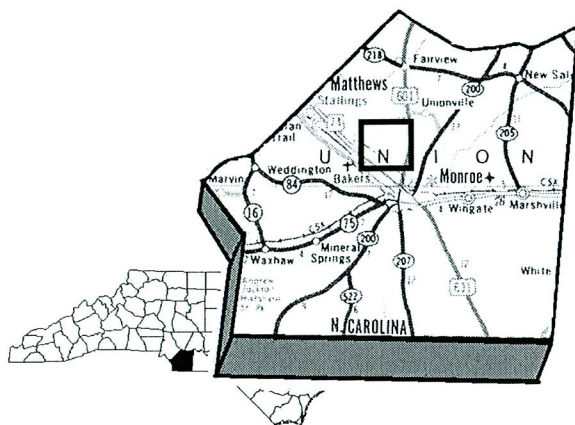
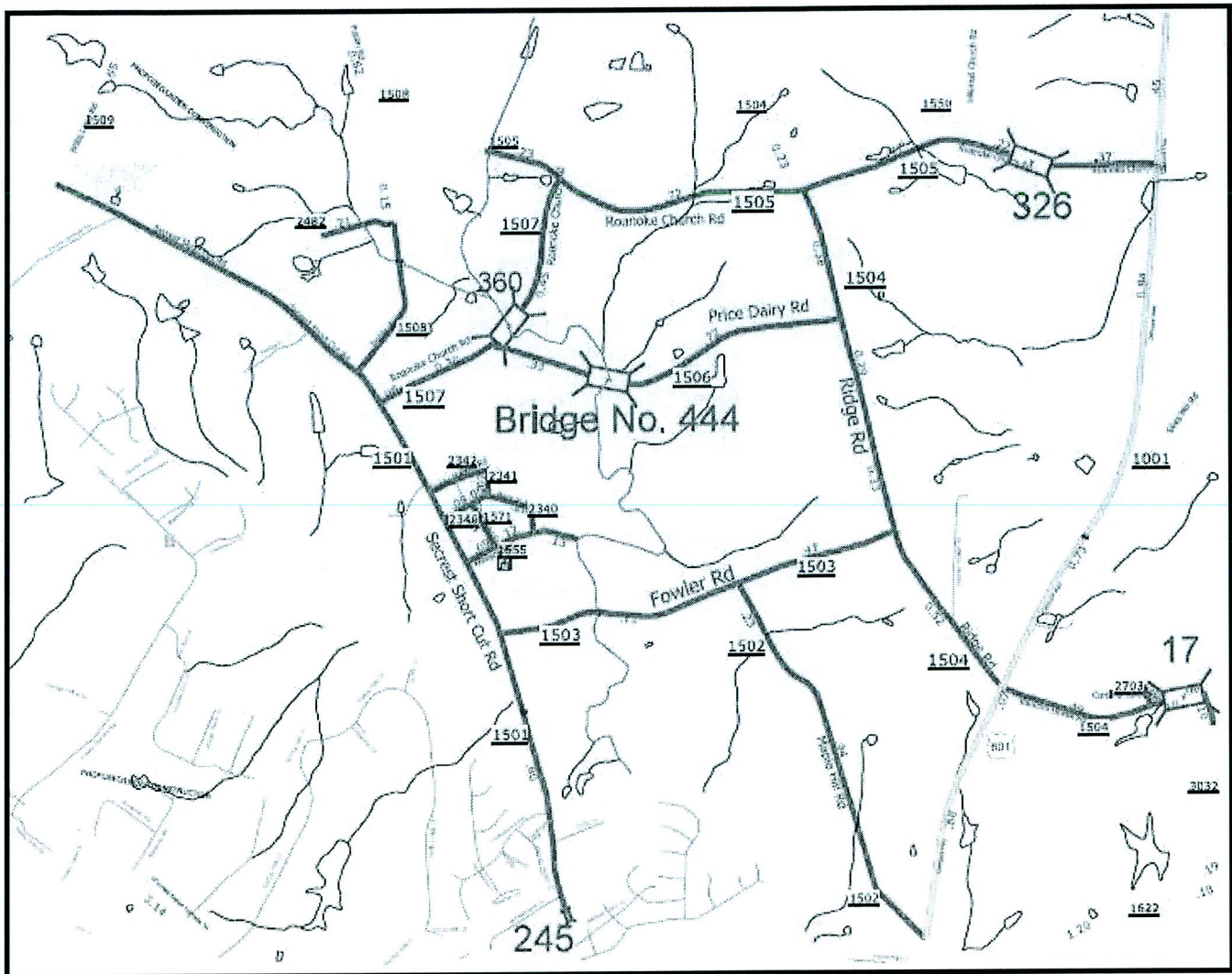
Date



811 PRICE DAIRY ROAD. NOT NR ELIGIBLE.



1107 Price Dairy Rd. Not NR eligible.



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT & ENVIRONMENTAL
ANALYSIS UNIT

UNION COUNTY
Replace Bridge No. 444 on SR 1506
OVER EAST FORK STEWARTS CREEK
B-5370

Figure 1



NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS BRANCH

UNION COUNTY

REPLACE BRIDGE NO. 444
ON SR 1506 OVER
EAST FORK STEWARTS CREEK
B-5370

1" = 200'



NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



PROJECT INFORMATION

Project No: **B-5370** County: **Union**
 WBS No: **46085.1.1** Document: **PCE OR CE**
 F.A. No: **BRZ-1506(3)** Funding: ☐ State ☒ Federal
 Federal Permit Required? ☐ Yes ☐ No Permit Type: **N/A**

Project Description: Replace Bridge 444 on SR 1506 over the East Fork of Stewart's Creek. Area of Potential Effects (A.P.E.) is approximately 305 meters (1,000 ft.) long and 60 meters (200 ft.) wide. No design plans provided. Federally-funded; no permit information provided; no easement information provided.

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:

Review included examination of topographic map, aerial photograph, soil survey, and listings of previously recorded sites, previous archaeological surveys, and previous environmental reviews at the Office of State Archaeology (O.S.A.).

Topographic map (Baker's, N.C.) shows the landforms within the A.P.E. have a low to moderate potential for archaeological sites. The landforms within the A.P.E. are the narrow, poorly drained streambed, and sloped hillsides on both sides of the stream, and level hilltops at the edge of the A.P.E. There are no level, well-drained areas adjacent to the stream within the A.P.E.

The soil survey shows the soil in the A.P.E. is Chewacla silt loam (0-2% slopes), frequently flooded, in the streambed. The soil on the west side eroded Tatum gravelly silty clay loam (2-8% slopes). The soil on the east side is Badin channery silty clay loam (2-8% slopes), an eroded, well-drained soil found on ridges, and Cid channery silty loam (1-5% slopes) a moderately well drained to somewhat poorly drained soil found on flats and ridges.

The aerial photograph shows the streambed and side slopes are wooded. All four quadrants appear to be cleared, residential yards.

A review of information at the O.S.A. shows no previously recorded archaeological sites within or adjacent to the A.P.E. The A.P.E. has not been previously surveyed for archaeological sites, and it is not located in any areas that have been previously reviewed by the State Historic Preservation Office (HPO).

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

The landforms within the A.P.E. have a low to moderate potential for archaeological sites. All four quadrants are residential yards. There are no previously recorded sites located within or adjacent to the A.P.E.

SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☐ Previous Survey Info
☐ Photocopy of County Survey Notes

☐ Photos ☐ Correspondence
Other: **aerial photograph**

FINDING BY NCDOT ARCHAEOLOGIST

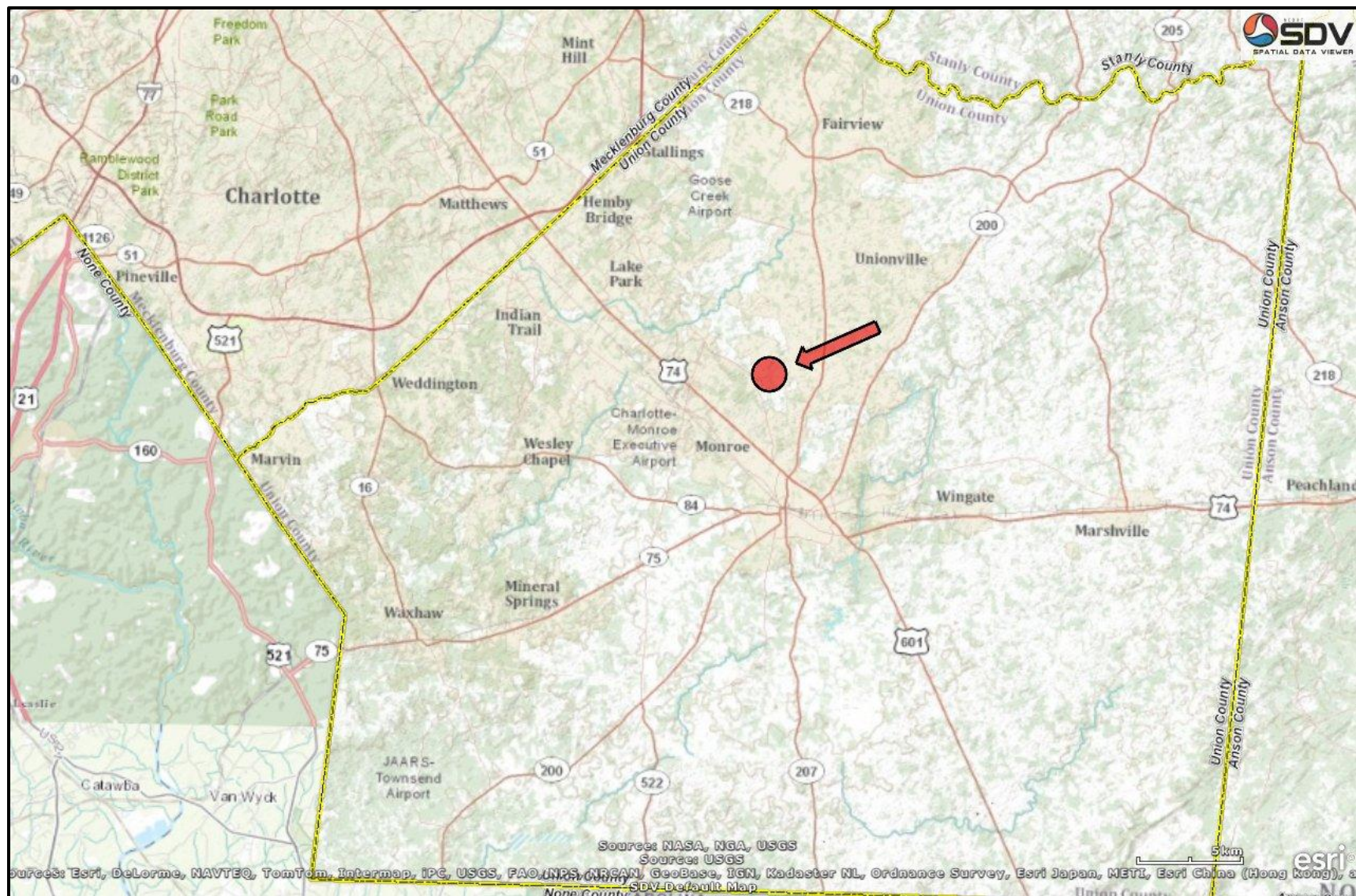
NO ARCHAEOLOGY SURVEY REQUIRED

Caleb Smith

6/21/2013

NCDOT ARCHAEOLOGIST II

Date



"No ARCHAEOLOGY SURVEY REQUIRED" form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement.





From: Joseph Lesch <joseph.lesch@co.union.nc.us>
Sent: Tuesday, October 22, 2013 9:02 AM
To: Brown, Dionne C
Subject: RE: Start of Study for NCDOT Division 10 Bridge Projects

Ms. Brown,

Back in December I forwarded comments on the Union County bridge projects to the Mecklenburg-Union MPO which were then supposed to be sent to NCDOT as comments under the MPO letterhead. I assume you received those but if not I'm including the comments

I sent to Bob Cook with MUMPO in December.

- B-5370 Replace bridge #444 on SR 1506 (Price Dairy Road) – This is a non-thoroughfare road located within the Town of Unionville. It currently has substandard lane widths of approximately 9'.
- B-5371 Replace bridge #71 on US 601 over Clear Creek – US 601 is designated as a boulevard that needs improvement on the draft CTP. The future cross section of 4 lanes with a median and bike lanes should be accommodated in the new bridge.
- B-5374 Replace bridge #448 on SR 2153 (Trinity Church Road) – This road is designated as a minor thoroughfare in the Union County CTP dated February, 2012. It is identified as needs improvement and calls for a 2 A cross section (12' wide lanes and wide paved shoulders posted at 55 mph). The bridge should accommodate this cross section.

Let me know if you have any questions.

Thank you,
Joe Lesch
Senior Transportation Planner
Union County
704-283-3690

From: Brown, Dionne C [mailto:dcbrown@ncdot.gov]
Sent: Monday, October 21, 2013 8:38 AM
To: dstoogenke@rockyriverrpo.org; pconrad@mblsolution.com; rwcook@ci.charlotte.nc.us; Cindy Coto; alucas@stanlycountync.gov; mlegg@cityofkannapolis.com; cwalton@charlottenc.gov; mkdowns@cabarruscounty.us; ELong@fairviewnc.gov
Cc: Williams, John L
Subject: FW: Start of Study for NCDOT Division 10 Bridge Projects

Hello All,

I have made initial contact with you back in Dec 2012 about any comments you may have regarding the bridge replacements in your area. Please take a look at the mapping and respond to this e-mail with any concerns. If you don't have any concerns, please respond with that as well.

After this e-mail, phone calls will be made to get your comments.

Please respond by Nov. 15, 2013.

Thank You,
Dionne C. Brown, P.E.

From: Brown, Dionne C

Sent: Wednesday, December 12, 2012 2:06 PM

To: michael.batuzich@dot.gov; militscher.chris@epamail.epa.gov; Strong, Brian; amy.chapman@ncdenr.gov; jason_mays@fws.gov; scott.c.mclendon@usace.army.mil; sarah.e.hair@usace.army.mil; 'dstoogenke@rockyriverrpo.org'; pconrad@mblsolution.com; 'rwcook@ci.charlotte.nc.us'; 'cindy.coto@co.union.nc.us'; 'alucas@stanlycountync.gov'; 'mlegg@cityofkannapolis.com'; 'cwalton@charlottenc.gov'; 'mkdowns@cabarruscounty.us'; 'jcollett@collett.biz'

Cc: Williams, John L

Subject: Start of Study for NCDOT Division 10 Bridge Projects

Hello All,

Attached you will find a start of study letter and mapping for bridge replacement projects in Division 10.

Ms. Dionne C. Brown
Bridge Project Planning Engineer
Project Development and Environmental Analysis- Bridge Section
919-707-6171
dcbrown@ncdot.gov

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.



Bridge No. 444 Replacement Project

Transportation Improvement Program (TIP)
No. B-5370

*NCDOT Mission:
Connecting people and places
safely and efficiently, with
accountability and environmental
sensitivity to enhance the
economy, health, and well-being
of North Carolina.*



*Bridge No. 444 on Price Dairy Road (S.R. 1506)
over East Fork Stewarts Creek*

Project Description

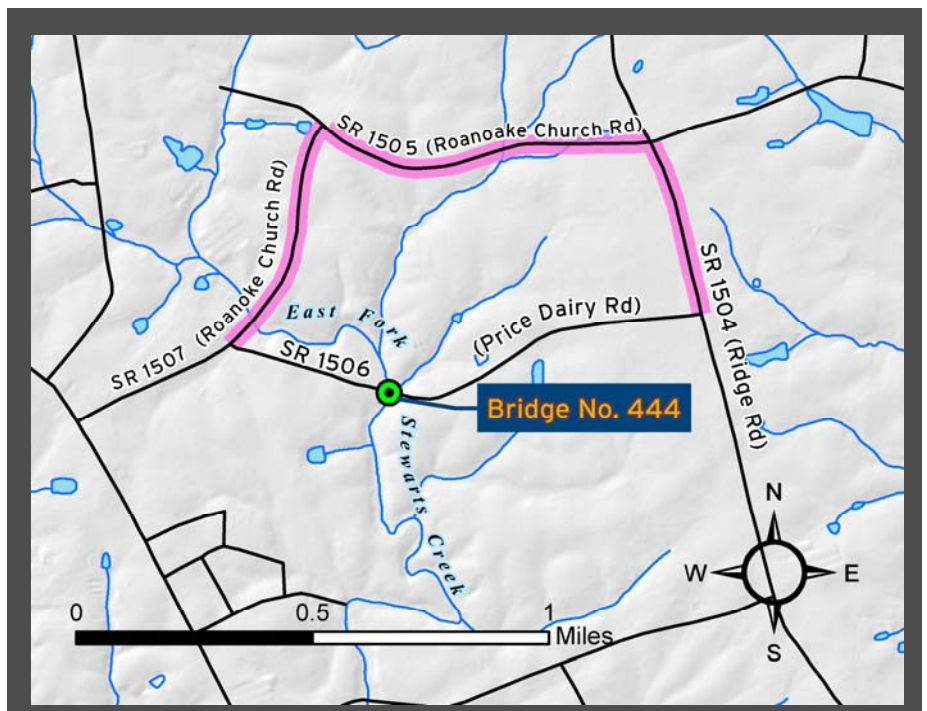
The North Carolina Department of Transportation (NCDOT) and the Federal Highway Administration (FHWA) are proposing to replace Bridge No. 444 on Price Dairy Road (S.R. 1506) over East Fork Stewarts Creek in Union County, N.C. Bridge No. 444 was built in 1958 and is reaching the end of its useful life. The purpose of the project is to provide a safer and more durable structure at this location. Approximately 300 vehicles per day use the bridge. By 2035, that number is expected to increase to 500 vehicles per day. The posted weight limit on Bridge No. 444 has been reduced to 15 tons for single vehicles and 21 tons for truck-tractor semi-trailers. The bridge will be replaced at the existing location with a triple barrel reinforced concrete box culvert, which will result in safer traffic operations.

Schedule for Bridge No. 444 (TIP No. B-5370)

June 2015	Completion of Environmental Studies
December 2016	Right-of-Way Acquisition Begins
December 2017	Construction Begins

Off-site Detour and Construction Information

During construction, traffic will be maintained on the off-site detour. This 1.6-mile detour uses Roanoke Church Road and Ridge Road and is illustrated in the vicinity map to the right. Construction of the new culvert will take approximately six months to complete. Access will be maintained to existing driveways along Price Dairy Road during construction.





**Bridge No. 444 Replacement Project
on Price Dairy Road
over East Fork Stewarts Creek (TIP No. B-5370)**

North Carolina Department of Transportation
Project Development and Environmental Analysis Unit
Attn: Zahid Baloch, PE
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Important Information—Please Read!

Contact Us

For questions or comments about this project, please contact one of the following project team members:

Zahid Baloch, PE

NCDOT—PD&EA Unit
1548 Mail Service Center
Raleigh, NC 27699-1548
Phone: 919-707-6012
Email: zbalach@ncdot.gov

**Kristina Miller, PE, or
Elizabeth Workman-Maurer**

RK&K Consulting Firm
900 Ridgefield Drive, Ste. 350
Raleigh, NC 27609
Phone: 919-878-9560
Fax: 919-790-8382
Email: kmiller@rkk.com or
eworkman@rkk.com

**Do you want to share your
thoughts on the project?**

Please feel free to mail, email or fax your comments to a project team member by **May 29, 2015**.

Persons who speak Spanish and do not speak English, or have a limited ability to read, speak or understand English, may receive interpretive services upon request by calling (800) 481-6494.